

Liste de productions

Alexander Shen

1 Publication dans une revue internationale [RI]

1. Laurent Bienvenu, Damien Desfontaines, and Alexander Shen. Generic algorithms for halting problem and optimal machines revisited. *Logical Methods in Computer Science*, 12(1):1–29, May 2016
2. Andrei E. Romashchenko and Alexander Shen. Topological arguments for Kolmogorov complexity. *Theory of Computing Systems*, 56(3):513–526, 2015,
3. Bruno Bauwens and Alexander Shen. Complexity of complexity and strings with maximal plain and prefix Kolmogorov complexity. *Journal of Symbolic Logic*, 79(2):620–632, 2014
4. Laurent Bienvenu, Andrei Romashchenko, Alexander Shen, Antoine Tavenaux, and Stijn Vermeeren. The axiomatic power of Kolmogorov complexity. *Annals of Pure and Applied Logic*, 165(9):1380–1402, 2014
5. Bruno Durand, Andrei E. Romashchenko, and Alexander Shen. Fixed-point tile sets and their applications. *Journal of Computer and System Sciences*, 78(3):731–764, 2012
6. Bruno Bauwens and Alexander Shen. An additivity theorem for plain Kolmogorov complexity. *Theory of Computing Systems*, 52(2):297–302, Feb 2013
7. Laurent Bienvenu, Adam Day, Mathieu Hoyrup, Ilya Mezhiro, and Alexander Shen. A constructive version of Birkhoff’s ergodic theorem for Martin-Löf random points. *Information and Computation*, 210:21–30, July 2012
8. Laurent Bienvenu, Peter Gacs, Mathieu Hoyrup, Cristobal Rojas, and Alexander Shen. Algorithmic tests and randomness with respect to a class of measures. *Proceedings of the Steklov Institute of Mathematics*, 274:34–89, 2011
9. Mikhail Andreev, Ilya Razenshteyn, and Alexander Shen. Not Every Domain of a Plain Decompressor Contains the Domain of a Prefix-Free One. *Theoretical Computer Science*, 412(4–5):482–486, January 2011
10. Daniil Musatov, Andrei E. Romashchenko, and Alexander Shen. Variations on Muchnik’s conditional complexity theorem. *Theory Comput. Syst.*, 49(2):227–245, 2011
11. A. Philip Dawid, Steven de Rooij, Glenn Shafer, Alexander Shen, Nikolai K. Vereshchagin, and Vladimir Vovk. Insuring against loss of evidence in game-theoretic probability. *Statistics & Probability Letters*, 81(1):157–162, 2011
12. Glenn Shafer, Alexander Shen, Nikolai K. Vereshchagin, and Vladimir Vovk. Test martingales, Bayes factors, and p-values. *Statistical Science*, 26:84–101, 2011
13. Yen-Wu Ti, Ching-Lueh Chang, Yuh-Dang Lyuu, and Alexander Shen. Sets of k-independent strings. *International Journal of Foundations of Computer Science*, 21(3):321–327, 2010
14. Laurent Bienvenu, Andrej A. Muchnik, Alexander Shen, and Nikolai K. Vereshchagin. Limit complexities revisited. *Theory of Computing Systems*, 47(3):720–736, 2010
15. Vladimir Vovk and Alexander Shen. Prequential randomness and probability. *Theoretical Computer Science*, 411(29-30):2632–2646, 2010

16. Bruno Durand, Andrei E. Romashchenko, and Alexander Shen. Fixed point theorem and aperiodic tilings. *Bulletin of the EATCS*, 97:126–136, 2009
17. Laurent Bienvenu, Glenn Shafer, and Alexander Shen. On the history of martingales in the study of randomness. *Electronic Journal for History of Probability and Statistics*, 5(1, June 2009):1–40, 2009
18. Laurent Bienvenu, Wolfgang Merkle, and Alexander Shen. A simple proof of Miller-Yu theorem. *Fundamenta Informaticae*, 83(1-2):21–24, 2008
19. Noga Alon, Ilan Newman, Alexander Shen, Gábor Tardos, and Nikolai K. Vereshchagin. Partitioning multi-dimensional sets in a small number of “uniform” parts. *European Journal of Combinatorics*, 28(1):134–144, 2007
20. Bruno Durand, Leonid A. Levin, and Alexander Shen. Complex Tilings. *Journal of Symbolic Logic*, 73(2):593–613, 2008
21. Andrej A. Muchnik, Alexander Shen, Mikhail Ustinov, Nikolai K. Vereshchagin, and Mikhail Vyalyi. Non-reducible descriptions for conditional Kolmogorov complexity. *Theoretical Computer Science*, 384(1):77–86, 2007
22. Bruno Durand, Leonid A. Levin, and Alexander Shen. Local rules and global order, or aperiodic tilings. *The Mathematical Intelligencer*, 27(1):64–68, 2005
23. Alexey Chernov, Andrej A. Muchnik, Andrei E. Romashchenko, Alexander Shen, and Nikolai K. Vereshchagin. Upper semi-lattice of binary strings with the relation “x is simple conditional to y”. *Theoretical Computer Science*, 271(1-2):69–95, 2002
24. Andrei E. Romashchenko, Alexander Shen, and Nikolai K. Vereshchagin. Combinatorial Interpretation of Kolmogorov Complexity. *Theoretical Computer Science*, 271(1-2):111–123, 2002
25. Bruno Durand, Alexander Shen, and Nikolai K. Vereshchagin. Descriptive complexity of computable sequences. *Theoretical Computer Science*, 271(1-2):47–58, 2002
26. Alexander Shen and Nikolai K. Vereshchagin. Logical operations and Kolmogorov complexity. *Theoretical Computer Science*, 271(1-2):125–129, 2002
27. Daniel Hammer, Andrei E. Romashchenko, Alexander Shen, and Nikolai K. Vereshchagin. Inequalities for Shannon Entropy and Kolmogorov Complexity. *Journal of Computer and System Sciences*, 60:442–464, 2000
28. Alexander Shen. Discussion on Kolmogorov Complexity and Statistical Analysis. *The Computer Journal*, 42(4):340–342, 1999
29. Daniel Hammer and Alexander Shen. A Strange Application of Kolmogorov Complexity. *Theory of Computing Systems*, 31(1):1–4, 1998
30. Vladimir A. Uspensky and Alexander Shen. Relations Between Varieties of Kolmogorov Complexities. *Mathematical Systems Theory*, 29(3):271–292, 1996
31. Alexander Shen. Algorithmic complexity and randomness: Recent developments. *Theory of Probability and Applications*, 37(1):6–10, 1993
32. Alexander Shen. $IP=PSPACE$: Simplified Proof. *Journal of the ACM (JACM)*, 39(4):878–880, 1992
33. Vladimir A. Uspensky, Alexej L. Semenov, and Alexander Shen. Can an individual sequence of zeros and ones be random? *Russian Mathematical Surveys*, 45(1):121–189, 1990
34. Vladimir A. Uspensky, Alexej L. Semenov, and Alexander Shen. Может ли (индивидуальная) последовательность нулей и единиц быть случайной? *Успехи математических наук [Russian Mathematical Surveys]*, 45(1(271)):105–162, 1990

35. Alexander Shen. On relations between different algorithmic definitions of randomness. *Soviet Mathematics Doklady*, 38:316–319, 1989
36. Alexander Shen. О соотношениях между различными алгоритмическими определениями случайности. *Доклады АН СССР [Doklady AN SSSR]*, 302(3):548–552, 1988
37. Paul Vitányi and Ming Li. Колмогоровская сложность: двадцать лет спустя. Перевод Н.К.Верецагина под редакцией А.Шеня. *Успехи математических наук*, 43(6(264)):129–166, 1988
38. Alexander Shen. Вероятностные игры в конечных играх с полной информацией. *Теория вероятностей и ее применения*, (1987)(3):567–569, 1987
39. Alexander Shen. Algorithmic variants of the notion of entropy. *Soviet Mathematics Doklady*, 29(3):569–573, 1984
40. Alexander Shen. Алгоритмические варианты понятия энтропии. *Доклады АН СССР [Doklady AN SSSR]*, 276(3):563–566, 1984
41. Alexander Shen. The concept of (α, β) -stochasticity in the Kolmogorov sense, and its properties. *Soviet Mathematics Doklady*, 271(1):295–299, 1983
42. Alexander Shen. Понятие (α, β) -стохастичности по Колмогорову и его свойства. *Доклады АН СССР [Doklady AN SSSR]*, 271(6):1337–1440, 1983
43. Alexander Shen. Частотный подход к определению понятия случайной последовательности. *Семантика и информатика. Вып. 18*, 18:14–42, 1982
44. Alexander Shen. Аксиоматический подход к теории алгоритмов и относительная вычислимость. *Вестник МГУ. Сер. 1. Математика, механика*, (1980)(2):27–29, 1980
45. Alexander Shen. Метод приоритета и проблемы отделения. *Доклады АН СССР [Doklady AN SSSR]*, 248(6):1309–1313, 1979

2 Publications dans les actes d’une conférence [AC]

1. Laurent Bienvenu and Alexander Shen. K -trivial, K -low and MLR -low sequences: A tutorial. In Lev D. Beklemishev, Andreas Blass, Nachum Dershowitz, Bernd Finkbeiner, and Wolfram Schulte, editors, *Fields of Logic and Computation II - Essays Dedicated to Yuri Gurevich on the Occasion of His 75th Birthday*, volume 9300 of *Lecture Notes in Computer Science*, pages 1–23. Springer, 2015
2. Alexander Shen. Around Kolmogorov complexity: basic notions and results. In Vladimir Vovk, Harris Papadopoulos, and Alexander Gammernan, editors, *Measures of Complexity. Festschrift for Alexey Chervonenkis*, chapter 7, pages 75–116. Springer International Publishing, 2015
3. Nikolay Vereshchagin and Alexander Shen. Algorithmic statistics revisited. In *Measures of Complexity. Festschrift for Alexey Chervonenkis*, pages 235–252. Springer International Publishing, 2015
4. Laurent Bienvenu, Damien Desfontaines, and Alexander Shen. What Percentage of Programs Halt? In Magnús M. Halldórsson, Kazuo Iwama, Naoki Kobayashi, and Bettina Speckmann, editors, *ICALP 2015, 42nd International Colloquium, Kyoto, Japan, July 6-10, 2015. LNCS 9134.*, volume 9134 of *Lecture Notes in Computer Science*, pages 219–230, Berlin, Heidelberg, 2015. Springer Berlin Heidelberg
5. Laurent Bienvenu, Benoit Monin, and Alexander Shen. Algorithmic identification of probabilities is hard. In Peter Auer, Alexander Clark, Thomas Zeugmann, and Sandra Zilles, editors, *Algorithmic Learning Theory - 25th International Conference, ALT 2014, Bled, Slovenia, October 8-10, 2014. Proceedings*, volume 8776 of *Lecture Notes in Computer Science*, pages 85–95. Springer, 2014

6. Andrei Rumyantsev and Alexander Shen. Probabilistic constructions of computable objects. In Vesa Halava, Juhani Karhumäki, and Yuri Matiyasevich, editors, *RuFiDiM II, Proceedings of the Second Russian Finnish Symposium on Discrete Mathematics 2012*, pages 1–5. Turku University, 2012
7. Alexander Shen and Andrei E. Romashchenko. Topological arguments for Kolmogorov complexity. In *AUTOMATA and JAC2012 conferences, EPTCS 90, 2012*, pages 127–132, 2012
8. Alexander Shen. Game arguments in computability theory and algorithmic information theory. In S. Barry Cooper, Anuj Dawar, and Benedikt Löwe, editors, *CiE*, volume 7318 of *Lecture Notes in Computer Science*, pages 655–666. Springer, 2012
9. Alexander Shen. Kolmogorov complexity as a language. In *Computer Science: Theory and Applications, 6th International Computer Science Symposium in Russia, CSR 2011, St. Petersburg, Russia, June 14-18, 2011. Proceedings. LNCS, 6651*, pages 105–119. Springer, 2011
10. Laurent Bienvenu and Alexander Shen. Random semicomputable reals revisited. In Michael J. Dinneen, Bakhadyr Khoussainov, and André Nies, editors, *Computation, Physics and Beyond (2012), LNCS 7160*, pages 31–45. Springer, 2012
11. Bruno Durand, Andrei E. Romashchenko, and Alexander Shen. Effective closed subshifts in 1D can be implemented in 2D. In *Fields of Logic and Computation, Lecture Notes in Computer Science, v.6300*, pages 208–226. Springer Berlin Heidelberg, 2010
12. Mikhail Andreev, Ilya Razenshteyn, and Alexander Shen. Not Every Domain of a Plain Decompressor Contains the Domain of a Prefix-Free One. In *CIE 2010 Proceedings*, 2010
13. Laurent Bienvenu, Adam R. Day, Ilya Mezhirov, and Alexander Shen. Ergodic-Type Characterizations of Algorithmic Randomness. In *CiE 2010, LNCS 6158*, pages 49–58, 2010
14. Alexander Shen. Decomposition complexity. In Jarkko Kari, editor, *JAC*, pages 203–213. Turku Center for Computer Science, 2010
15. Bruno Durand, Andrei E. Romashchenko, and Alexander Shen. High complexity tiling with sparse errors. In *Automata, Languages and Programming, ICALP 2009 Proceedings, LNCS 5555*, pages 403–414, 2009
16. Daniil Musatov, Andrei E. Romashchenko, and Alexander Shen. Variations on Muchnik’s Conditional Complexity Theorem. In *CSR 2009, LNCS 5675*, pages 250–262, 2009
17. Alexander Shen. Algorithmic Information Theory and Foundations of Probability. In *Reachability problems, LNCS 5797, Springer, 2009*, pages 26–34, 2009
18. Laurent Bienvenu, Andrei E. Romashchenko, and Alexander Shen. Sparse sets. In *Journees Automates Cellulaires 2008 (Uzes)*, pages 18–28, 2008
19. Laurent Bienvenu, Andrej Muchnik, Alexander Shen, and Nikolay Veraschagin. Limit complexities revisited. In Susanne Albers and Pascal Weil, editors, *STACS*, volume 1 of *LIPICs*, pages 73–84. Schloss Dagstuhl - Leibniz-Zentrum fuer Informatik, Germany, 2008
20. Vladimir Vovk and Alexander Shen. Prequential randomness. In Yoav Freund, László Györfi, György Turán, and Thomas Zeugmann, editors, *ALT*, volume 5254 of *Lecture Notes in Computer Science*, pages 154–168. Springer, 2008
21. Alexey Chernov, Alexander Shen, Nikolai K. Vereshchagin, and Vladimir Vovk. On-Line Probability, Complexity and Randomness. In *ALT 2008, LNCS 5254*, pages 138–153. Springer, 2008
22. Bruno Durand, Andrei E. Romashchenko, and Alexander Shen. Fixed Point and Aperiodic Tilings. In Masami Ito and Masafumi Toyama, editors, *Proc. 12th international conference on Developments in Language Theory. Kyoto, Japan, September 2008*, volume 5257 of *Lecture Notes in Computer Science*, pages 537–548, Berlin, Heidelberg, 2008. Springer Berlin Heidelberg

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25. Alexander Shen. Kolmogorov complexity and algorithmic randomness: recent developments. In *Uppsala abstracts. Abstracts of papers presented in Uppsala, Sweden, 13-18 August 1990, 2nd World Congress of the Bernoulli Society for Mathematical Statistics and Probability. 53th Annual Meeting of the Institute of Mathematical Statistics*, page 34, 1990
26. Alexander Shen. Исчисление задач и f_0 -пространства. In *Шестая всесоюзная конференция по математической логике. Тбилиси, 30.XI - 2.XII.1982. Тезисы докладов.*, page 204. Издательство Тбилисского университета, 1982
27. Alexander Shen. Аксиоматическое описание понятия энтропии конечного объекта. In *Логика и основания математики. Тезисы VIII Всесоюзной конференции "Логика и методология науки". Паланга, 26-28 сентября 1982 г.*, pages 104–105, Вильнюс, 1982
28. Alexander Shen. Несколько замечаний о нумерациях, не являющихся натуральными. In *Математическая логика и математическая лингвистика. Межвузовский тематический сборник.*, pages 162–165, Калинин, 1981. Калининский государственный университет

Arxiv et Technical Reports [TR]

1. Nikolai K. Vereshchagin and Alexander Shen. Algorithmic statistics: forty years later. *CoRR*, abs/1607.08077, 2016
2. B. Bauwens, A. Shen, and H. Takahashi. Conditional probabilities and van Lambalgen theorem revisited. *ArXiv e-prints*, July 2016
3. L. Bienvenu, M. Hoyrup, and A. Shen. Layerwise computability and image randomness. *ArXiv e-prints*, July 2016
4. L. Bienvenu, D. Desfontaines, and A. Shen. Generic algorithms for halting problem and optimal machines revisited. *ArXiv e-prints*, May 2015
5. Alexander Shen. Around Kolmogorov complexity: basic notions and results. *CoRR*, abs/1504.04955, 2015
6. Nikolai K. Vereshchagin and Alexander Shen. Algorithmic statistics revisited. *CoRR*, abs/1504.04950, 2015
7. L. Bienvenu and A. Shen. K-trivial, K-low and MLR-low sequences: a tutorial. *ArXiv e-prints*, July 2014
8. L. Bienvenu, B. Monin, and A. Shen. Algorithmic identification of probabilities is hard. *ArXiv e-prints*, May 2014
9. A. Rumyantsev and A. Shen. Probabilistic Constructions of Computable Objects and a Computable Version of Lov'asz Local Lemma. *ArXiv e-prints*, May 2013
10. Laurent Bienvenu, Andrei Romashchenko, Alexander Shen, Antoine Tavenaux, and Stijn Vermeeren. The axiomatic power of Kolmogorov complexity. Technical report, arXiv, 2013
11. A. Shen and A. Romashchenko. Topological arguments for Kolmogorov complexity. *ArXiv e-prints*, June 2012
12. Alexander Shen. Выборы и статистика: казус “Единой России” (2009–2012). *ArXiv e-prints*, 2012

13. Laurent Bienvenu, Andrej A. Muchnik, Alexander Shen, and Nikolai K. Vereshchagin. Limit complexities revisited [once more], 2012
14. Andrej Muchnik, Alexander Shen, and Mikhail Vyugin. Game arguments in computability theory and algorithmic information theory. Technical report, arXiv, 2012
15. B. Bauwens and A. Shen. Complexity of complexity and strings with maximal plain and prefix Kolmogorov complexity. *ArXiv e-prints*, February 2012
16. Bruno Durand, Alexander Shen, and Nikolai K. Vereshchagin. Ammann tilings : a classification and an application, 2011
17. B. Bauwens and A. Shen. An additivity theorem for plain Kolmogorov complexity. *ArXiv e-prints*, November 2011
18. L. Bienvenu and A. Shen. Random semicomputable reals revisited. *ArXiv e-prints*, October 2011
19. Alexander Shen. Are random axioms useful?, 2011
20. A. P. Dawid, S. de Rooij, P. Grunwald, W. M. Koolen, G. Shafer, A. Shen, N. Vereshchagin, and V. Vovk. Probability-free pricing of adjusted American lookbacks. *ArXiv e-prints*, August 2011
21. L. Bienvenu, P. Gacs, M. Hoyrup, C. Rojas, and A. Shen. Algorithmic tests and randomness with respect to a class of measures. *ArXiv e-prints*, March 2011
22. Alexander Shen. Kolmogorov complexity as a language. *CoRR*, abs/1102.5418, 2011
23. B. Durand, A. Romashchenko, and A. Shen. 1D Effectively Closed Subshifts and 2D Tilings. *ArXiv e-prints*, December 2010
24. A. Shen. Decomposition Complexity. *ArXiv e-prints*, December 2010
25. Laurent Bienvenu, Adam R. Day, Mathieu Hoyrup, Ilya Mezhirov, and Alexander Shen. A constructive version of Birkhoff's ergodic theorem for Martin-Löf random points, 2010
26. A. P. Dawid, S. de Rooij, G. Shafer, A. Shen, N. Vereshchagin, and V. Vovk. Insuring against loss of evidence in game-theoretic probability. *ArXiv e-prints*, May 2010
27. Andrej A. Muchnik, Ilya Mezhirov, Alexander Shen, and Nikolai K. Vereshchagin. Game interpretation of Kolmogorov complexity, 2010
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29. B. Durand, A. Romashchenko, and A. Shen. Fixed point theorem and aperiodic tilings. *ArXiv e-prints*, March 2010
30. M. Andreev, I. Razenshteyn, and A. Shen. Not Every Domain of a Plain Decompressor Contains the Domain of a Prefix-Free One. *ArXiv e-prints*, January 2010
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32. Bruno Durand, Andrei E. Romashchenko, and Alexander Shen. Fixed-point tile sets and their applications, 2009
33. A. Shen. Algorithmic Information Theory and Foundations of Probability. *ArXiv e-prints*, 2009
34. Laurent Bienvenu and Alexander Shen. Algorithmic information theory and martingales, 2009
35. D. Musatov, A. Romashchenko, and A. Shen. Variations on Muchnik's Conditional Complexity Theorem. *ArXiv e-prints*, April 2009

36. L. Bienvenu, A. Muchnik, A. Shen, and N. Vereshchagin. Limit complexities revisited. *ArXiv e-prints*, February 2008
37. B. Durand, A. Romashchenko, and A. Shen. Fixed Point and Aperiodic Tilings. *ArXiv e-prints*, February 2008
38. B. Durand, L. A. Levin, and A. Shen. Complex Tilings. *eprint arXiv:cs/0107008*, July 2001
39. Alexander Shen. Algorithmic Information theory and Kolmogorov complexity. Technical report TR2000-034, 2000

Textbooks

(Some books are already sent to the printer, but are labeled as 2017 for marketing reasons)

1. Andrei Romashchenko, Andrei Rumyantsev, and Alexander Shen. *Заметки по теории кодирования*. MCCME, 2 (corrected) edition, 2017
2. Nikolai K. Vereshchagin and Alexander Shen. *Начала теории множеств*. МЦНМО, Москва, 5 edition, 2017
3. Nikolai K. Vereshchagin and Alexander Shen. *Языки и исчисления*. МЦНМО, 5 edition, 2017
4. Nikolai K. Vereshchagin and Alexander Shen. *Вычислимые функции*. МЦНМО, 5 edition, 2017
5. Alexander Shen. *Программирование: теоремы и задачи*. МЦНМО, Москва, 6 (дополненное) edition, 2017
6. Alexander Shen, Vladimir A. Uspensky, and Nikolai K. Vereshchagin. *Kolmogorov complexity and algorithmic randomness*. American Mathematical Society, 2016
7. Vladimir A. Uspensky, Nikolai K. Vereshchagin, and Alexander Shen. *Колмогоровская сложность и алгоритмическая случайность*. MCCME, 2012
8. Alexander Shen. *Algorithms and programming: problems and solutions*. Springer, 2 edition, 2010
9. Alexander Shen. *Программирование: теоремы и задачи*. МЦНМО, Москва, 4 edition, 2011
10. Alexey Kitaev, Alexander Shen, and Mikhail Vyalyi. *Classical and quantum computations*. AMS, 2002
11. Alexander Shen and Nikolai K. Vereshchagin. *Computable Functions*. AMS, 2003
12. Alexander Shen and Nikolai K. Vereshchagin. *Basic set theory*. AMS, 2002

Popular expositions etc.

1. Alexander Shen. Algorithmic Information Theory. In Luciano Floridi, editor, *The Routledge handbook of philosophy of information*, pages 37–43. Routledge, 2016
2. Alexander Shen. *Geometry in Problems*. American Mathematical Society, 2013
3. Alexander Shen. *Вероятность : примеры и задачи. Издание 4-е, стереотипное*. МЦНМО, Москва, 2016
4. Alexander Shen. *Математическая индукция*. МЦНМО, Москва, 5 edition, 2016
5. Alexander Shen. *Игры и стратегии с точки зрения математики*. МЦНМО, Москва, 4 edition, 2016
6. Israel M. Gelfand and Alexander Shen. *Алгебра*. МЦНМО, Москва, 2nd edition, 2014

7. Alexander Shen. *Геометрия в задачах*. МЦНМО, Moscow, 2013
8. Alexander Shen. *Логарифм и экспонента*. МЦНМО, Москва, 2013
9. Alexander Shen. *Following the path of Turing*, 2012
10. Alexander Shen. *О “математической строгости” и школьном курсе математики*. МЦНМО, 2 edition, 2011
11. Alexander Shen. *Выборы и статистика: казус “Единой России”*, 2009
12. Anthony Ayiomamitis and Alexander Shen. *Космография*. МЦНМО, Москва, 2009
13. Alexander Shen. *Простые и составные числа*. МЦНМО, Москва, 2 edition, 2008
14. Alexander Shen. Letter to the editor: Girls and Boys in Moscow. *The Mathematical Intelligencer*, 24(1):3, 2002
15. Alexander Shen. A Computer Scientist’s View of Evolution. *The Mathematical Intelligencer*, 23(4):3–3, 2001
16. Alexander Shen. Cliques, the Cauchy Inequality , and Information Theory. *The Mathematical Intelligencer*, 22(4):14–15, 2000
17. Alexander Shen. Why circles? *The Mathematical Intelligencer*, 22(2):18–18, 2000
18. Alexander Shen. A cultural gap revisited. *The Mathematical Intelligencer*, 22(2):16–17, 2000
19. Alexander Shen. Lights Out. *The Mathematical Intelligencer*, 22(3):20–21, 2000
20. Alexander Shen. Unexpected Proofs. *The Mathematical Intelligencer*, 21(3):48–50, 1999
21. Alexander Shen. Letter to the editor: The Uses of Referees. *The Mathematical Intelligencer*, 21(3):3, 1999
22. Alexander Shen. Geometry Problems Revisited. *The Mathematical Intelligencer*, 20(2):36–37, 1998
23. Alexander Shen. Two more probabilistic arguments - Poncelet theorem revisited. *The Mathematical Intelligencer*, 20(4):30–32, 1998
24. Alexander Shen. Probabilistic Proofs. *The Mathematical Intelligencer*, 20(3):29–31, 1998
25. Alexander Shen. Semi-Integer Rectangles - Cube and Tetrahedron. *The Mathematical Intelligencer*, 19(1):12–14, 1997
26. Alexander Shen. An Unfair Game - Colorings and Coverings - Tilings and Polyhedra Revisited - Another Euler-type equation. *The Mathematical Intelligencer*, 19(4):48–50, 1997
27. Alexander Shen. Three-Dimensional Solutions for Two-Dimensional Problems. *The Mathematical Intelligencer*, 19(3):44–47, 1997
28. Alexander Shen. Entrance Examinations to the Mekh-mat. *The Mathematical Intelligencer*, 16(4):6–10, 1994
29. Alexander Shen. Что такое случайность? *Квант*, page 7, 1983

Thesis

1. Alexander Shen. *Алгоритмические варианты понятия энтропии (01.01.06-алгебра, теория чисел, математическая логика)*. Автореферат диссертации на соискание ученой степени к.ф.м.н. PhD thesis, МГУ им. Ломоносова, мехмат, Москва, 1985
2. Alexander Shen. *Алгоритмические варианты понятия энтропии*. Диссертация на соискание ученой степени кандидата физико-математических наук. Научный руководитель В.А.Успенский. PhD thesis, МГУ им. Ломоносова, 1985